

## \* CHEVRON JOB HAZARD ANALYSIS FORM

**NOTE:** This form is brought to the work site by the **first** representative of **each craft**. (Page 1 of 2)

<b>DATE:</b>	<b>JOB NO.:</b>	<b>LOCATION:</b>
<b>MAINT. SUPERVISOR:</b>		<b>PHONE NO.:</b>
<b>OPERATOR-Print Name and CAI:</b>		<b>PHONE NO:</b>
<u>MECHANICS- Print Name and CAI:</u>	<u>CRAFT</u>	<u>COMPANY</u>
DESCRIPTION OF WORK:		

<b>JOINT JOB SITE VISIT (JJSV)</b> – Operator/Mechanic Discussion      Completed? -->	Yes	No	N/A
<b>Isolation List:</b> Review list, operator points out all isolation and depressurization points (first break, low point, dead leg)	<input type="checkbox"/>	<input type="checkbox"/>	
<b>Radiation Sources Identified and Isolated:</b> <b>Location:</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Electrical Isolation Verification:</b> Electrician lock on lockbox. The Operator is responsible for ensuring all personnel are clear of hazards which might result from the equipment being energized/de-energized. Operator test start/stop switch.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Isolation Lock Key:</b> If no electrician, first craft representative witnesses key deposited in lockbox.	<input type="checkbox"/>	<input type="checkbox"/>	
<b>Locks and Tags Installed:</b> Confirm that all locks and tags are installed per RI-9900.	<input type="checkbox"/>	<input type="checkbox"/>	
<b>Additional Work Permits</b> reviewed and signed—All permit numbers must be listed below:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ignition Source # _____ General Work # _____ Switch Card # _____			
High Heat # _____ Excavation # _____ Other : _____			
Fresh Air # _____ Confined Space # _____			
<b>Hazardous Materials:</b> Material: _____ MSDS on Site.: <input type="checkbox"/> Gas Test Required: Yes <input type="checkbox"/> No <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Personal Protective Equipment reviewed</b> —check those that apply: <input type="checkbox"/> Respirator <input type="checkbox"/> Hearing Protection <input type="checkbox"/> Goggles <input type="checkbox"/> Face shield <input type="checkbox"/> Chemical Suit <input type="checkbox"/> Chemical Gloves <input type="checkbox"/> Tape/Barricade Required	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Safety Equipment</b> identified: Eyewash/Safety Shower, Fire Equipment.	<input type="checkbox"/>	<input type="checkbox"/>	
Nearby Jobs That Pose Additional Hazards reviewed.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Hazardous Non-routine Maintenance:</b> (i.e., in-plant hot work, hot taps, leak seals, live relief, Scott Air). Discuss what could go wrong. Consider alternative solutions. Consider raising the approval level. Confirm that it is safe to proceed.	<input type="checkbox"/> Yes <input type="checkbox"/> No		

**JOB HAZARD ANALYSIS (JHA) – ALL CRAFTS:** Complete discussion topics below. Review JJSV items above.

General Questions	Yes	No	N/A	General Questions	Yes	No	N/A
Evacuation assembly area known?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Staging required/tagged appropriately?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Emergency action plan reviewed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Crane/lifting equipment required?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fall Protection required	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Proper lighting/night work?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
MSDS's Reviewed with crew/on-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Housekeeping?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Barricade tape/fence/shield?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Gas Testing Required?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Emergency Notification Method:	<input type="checkbox"/> Air horn <input type="checkbox"/> Radio <input type="checkbox"/> Telephone : # _____			<input type="checkbox"/> Hand Signals			

**SAFETY REMINDERS** – Review these items before starting work.

General Topics	Yes	No	N/A	General Topics	Yes	No	N/A
Safety behaviors discussed	<input type="checkbox"/>	<input type="checkbox"/>		Flying particles/sharp objects/hot surfaces	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Basic PPE: Head/Eye/FR clothing/gloves/footwear	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Cathodic Protection Systems – See RI-9900 –Appendix K	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Proper tools and equip./use/condition	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Inert atmospheres/surroundings	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Flammables properly stored	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Permissible Exposure Limits	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Slipping/tripping hazards	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Bonding/ Grounding/ Static	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Pinch points/line of fire	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	HSE needed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

COMMENTS from above JJSV and JHA reviews:

\*REVISED: 12/10 (Replaces 2/10)

Certified as current and accurate: 12/10

9900-B-1

CUSA-CSB-0083698

EPA

## \* CHEVRON JOB HAZARD ANALYSIS FORM

(Page 2 of 2)

**NOTE:** This form is brought to the work site by the **first** representative of **each** craft.

MACHINIST SPECIFIC ISSUES	Yes	No	N/A
Circuit breakers/valves verified chained and locked?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bleeder valves open and cleared (verified)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Steam turbine OST valve tripped, if applicable?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comp. worm gear disengaged before start-up and cylinder bleeders closed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
CRANE & RIGGING SPECIFIC ISSUES TO REVIEW	Yes	No	N/A
Critical lift plan	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Crew knows hand signals?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Weight of piece confirmed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Radius confirmed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Overhead obstructions?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ground level obstructions?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ground in stable condition?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Tail swing clearance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Crane barricade?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lift area barricaded?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Has rigging been inspected?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is man basket to be used?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ELECTRICAL SPECIFIC ISSUES	Yes	No	N/A
Is the isolation point for the job properly disconnected, locked, and tagged?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are foreign voltage sources identified and disconnected if necessary?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
If a switch card is involved, is the crew familiar with R-4050 and RI-389?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Has the isolation points on the switch card been reviewed with the crew prior to work?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is grounding required?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Limited approach boundary established (10 feet)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
INSTRUMENT SPECIFIC ISSUES	Yes	No	N/A
Has temperature and pressure sources been identified and bled off?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is the equipment isolated, control loops in manual and properly locked and tagged?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are all process materials contained in process lines (i.e., air supplies, impulse tubing, sample lines, etc.) drained, neutralized, capped off, and tagged?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
GMG - SPECIFIC ISSUES	Yes	No	N/A
Are uneven surfaces identified and mitigated?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are vehicle entry permits required?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are there conflicting jobs in the area? Yes <input type="checkbox"/> No <input type="checkbox"/> If yes, are they identified?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is barricade tape / tags required for overhead work?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is fall protection required? If so, are workers using proper fall protection for the job?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are scaffolding planks being used to stand on while erecting staging?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Critical Process Equipment and Alarm Transmitters identified? If tools or equipment drop will it take out a critical piece of equipment? Netting Required?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

OTHER SPECIFIC ISSUES	ADDITIONAL SAFETY CONCERNS AND CORRECTIVE ACTIONS TAKEN

**JHA SHIFT RENEWAL:** The following must be dated, initialed and checked:

Date: _____	Mechanic Initial: _____	Same Crew <input type="checkbox"/>	Same Job <input type="checkbox"/>	No Changes <input type="checkbox"/>	Discussed with Operations <input type="checkbox"/>
Date: _____	Mechanic Initial: _____	Same Crew <input type="checkbox"/>	Same Job <input type="checkbox"/>	No Changes <input type="checkbox"/>	Discussed with Operations <input type="checkbox"/>
Date: _____	Mechanic Initial: _____	Same Crew <input type="checkbox"/>	Same Job <input type="checkbox"/>	No Changes <input type="checkbox"/>	Discussed with Operations <input type="checkbox"/>
Date: _____	Mechanic Initial: _____	Same Crew <input type="checkbox"/>	Same Job <input type="checkbox"/>	No Changes <input type="checkbox"/>	Discussed with Operations <input type="checkbox"/>
Date: _____	Mechanic Initial: _____	Same Crew <input type="checkbox"/>	Same Job <input type="checkbox"/>	No Changes <input type="checkbox"/>	Discussed with Operations <input type="checkbox"/>

\*REVISED: 12/10 (Replaces 2/10)

Certified as current and accurate: 12/10

9900-B-2

CUSA-CSB-0083699

EPA